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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.            | CONFIRMATION NO.       |
|--|-------------|----------------------|--------------------------------|------------------------|
| 10/777,299   | 02/12/2004  | Paul E. Share        | 13015/39281                    | 5310                   |
| 62127 7590 03/05/2009<br>VALSPAR SOURCING, INC.<br>901 3rd Avenue South<br>PO Box 1461<br>MINNEAPOLIS, MN 55440-1461 |             |                      | EXAMINER<br>DANIELS, MATTHEW J |                        |
|  |             |                      | ART UNIT<br>1791               | PAPER NUMBER           |
|  |             |                      | MAIL DATE<br>03/05/2009        | DELIVERY MODE<br>PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/777,299

**Applicant(s)**

SHARE ET AL.

**Examiner**

MATTHEW J. DANIELS

**Art Unit**

1791

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 November 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3,5-21 and 25-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-21 and 25-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S508)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

#### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

#### Rejections over Speer

1. **Claims 1-4, 6-15, 17-21, 25-33** are rejected under 35 U.S.C. 103(a) as obvious over Speer (US 5,211,875) in view of Collette (US 5,759,653).

**As to Claim 1**, Speer teaches a process in which a diluent polyester (6:8-18), a polyamide material (3:53-56), and an oxygen scavenging material (4:64-5:12) are preblended (10:40-65), and the material is subsequently injection molded or blow molded (6:45-50). The plastic container formed by the Speer process would be stable during unfilled storage since it is activated by radiation (9:8), and the barrier layer would have an oxygen scavenging property that is activated after filling the container with a product in view of the fact that Speer teaches that activation can be performed after packaging (9:7-11).

Speer is silent to the mixing the preblend into a molding apparatus with a base polyester, injection molding a preform, and then expanding the preform to provide a plastic container having a barrier layer formed from an admixture.

However, Collette teach a method comprising the steps of: (a) forming a preblend/masterbatch (col 5 lines 6-7) comprising: a diluent polyester (col 5 line 17), a polyamide material (col 5 line 18), and an oxygen scavenging material (col 5 line 19); providing

a base/core layer polyester (col 5 line 31); introducing the preblend and the base polyester into a molding apparatus to permit melting and admixing of the preblend and the base polyester (col 5 lines 29-65); injection molding or extruding the admixture in the apparatus to provide a preform (fig 3, 59); and expanding the preform to provide a plastic container having a barrier layer formed from the admixture of the preblend and polyester (fig 6 & 7). Collette also teaches forming bottles with catalysts that are activated by heat or radiation (7:32) and hot fill applications (7:61), and wherein a change in oxygen barrier condition across the wall can be induced by water from the product which is transmitted through the wall (8:47-49).

It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate the method of Collette into that of Speer because (a) Speer suggests a masterbatch process and diluent polyester (6:8-45), which Collette provides, and (b) the masterbatch process of Collette is a known technique that one that the ordinary artisan would have found applicable to the Speer process since both patents teach substantially the same constituents and end use (packaging), and one would have found it obvious to apply the masterbatch process of Collette to the Speer process in order to provide improved dispersion of the scavenging material in the polyester packaging material.

**As to Claim 2**, Collette teach that the plastic container is a multilayer plastic container (fig 7).

**As to Claim 3**, Collette suggest that monolayer plastic containers are known and conventional in the prior art (col 1 lines 47-51).

**As to Claim 5**, Collette teaches the same preblending process, and (see the rejection of Claim 1 above), and thus the preblend would implicitly exhibit the claimed characteristics despite that Collette is silent to comparing the preblend with the claimed hypothetical mixture.

**As to Claim 6**, Collette et al teach that the preblend is in a form of solid particles (col 5 line 26).

**As to Claim 7**, Collette et al teach that the diluent polyester is present in the preblend in an amount of about 25% to about 75%, by weight of the preblend (col 16 line 3-7).

**As to Claim 8**, Collette et al teach that the diluent polyester comprises polyethylene terephthalate and polyethylene naphthalate (col 14 line 22-27).

**As to Claim 9**, Collette teaches that the base polyester contains a substantial portion virgin PET, which would implicitly be bottle grade (16:12-14). It is noted that Claim 19 of Collette is drawn to “on the order of 50% post consumer PET” (15:15-20). However, the Examiner’s position will be that the additional post consumer PET does not materially affect the basic and novel characteristics of the claimed invention because it provides PET material which would have the same or substantially the same structure as the virgin material.

**As to Claim 10**, Collette et al teach that the polyamide material is present in the preblend in an amount of about 25% to about 75%, by weight of the preblend (col 15 line 7-11).

**As to Claim 11**, Collette et al teach that the polyamide material comprises a polymer containing m-xylylenediamine monomer units (col 10 line 51).

**As to Claim 12**, Collette et al teach that the polyamide material comprises a polymerization product of m-xylylenediamine and adipic acid (col 10 lines 51-52).

**As to Claims 13-15**, Collette et al teach an oxygen scavenging material present in the preblend in an amount of about 50 to about 1000 parts per million, by weight and comprises cobalt or a metal complex thereof (col 10 lines 24-37).

**As to Claim 17**, Collette et al teach that the base polyester is in a form of solid particles (col 5 lines 59-67).

**As to Claim 18**, Collette et al teach that the preblend and the base polyester are admixed in an amount of about 0.5% to about 20%, by weight, of the preblend, and about 80% to about 99.5%, by weight, of the base polyester (col 16 lines 8-11).

**As to Claim 19**, Collette et al teach that the base polyester is polyethylene terephthalate (col 5 line 31).

**As to Claim 20**, Collette et al teach that the polyethylene terephthalate comprises a virgin bottle grade polyethylene terephthalate, a post consumer grade polyethylene terephthalate, or a mixture thereof (col 5 lines 11-32).

**As to Claim 21**, Collette et al teach that the preform contains about 10 to about 80 ppm, by weight, of the oxygen scavenging material (col 1 line 53).

**As to Claim 25**, Collette teaches that the containers are maintained in refrigeration or desiccation (7:25-28), and hot filling (7:61) or filling with water (8:46-51), which would inherently activate the oxygen scavenging property for those catalysts which activate at room temperature (7:29-30). Alternatively, this aspect of the invention is drawn to a rearrangement of process steps disclosed in the prior art, which is generally deemed to be prima facie obvious. In view of Collette's teaching that the scavengers are activated by heat and moisture (), it would have been obvious to activate the scavengers with a hot product (7:61) containing moisture ()

**As to Claim 26**, Collette's teaching of the claimed process steps and ingredients, when used to form a package, would implicitly meet the claimed result.

**As to Claim 27**, Speer teaches a process in which a diluent polyester (6:8-18), a polyamide material (3:53-56), and an oxygen scavenging material (4:64-5:12) are preblended (10:40-65), and the material is subsequently injection molded or blow molded (6:45-50). The plastic container formed by the Speer process would be stable during unfilled storage since it is activated by radiation (9:8), and the barrier layer would have an oxygen scavenging property that is activated after filling the container with a product in view of the fact that Speer teaches that activation can be performed after packaging (9:7-11). When the package is filled with the product and the activation is performed after filling, the permeability would be less after 48 hours than prior to filling the package with product.

Speer is silent to the mixing the preblend into a molding apparatus with a virgin bottle grade base polyester, injection molding a preform, and then expanding the preform to provide a plastic container having a barrier layer formed from an admixture.

Collette teach a method comprising the steps of: (a) forming a preblend/masterbatch (col 5 lines 6-7) comprising: a diluent polyester (col 5 line 17), a polyamide material (col 5 line 18), and an oxygen scavenging material (col 5 line 19); providing a virgin grade polyester (col 16, lines 12-14); introducing the preblend and the polyester into a molding apparatus to permit melting and admixing of the preblend and the base polyester (col 5 lines 29-65); injection molding or extruding the admixture in the apparatus to provide a preform (fig 3, 59); and expanding the preform to provide a plastic container having a barrier layer formed from the admixture of the preblend and polyester (fig 6 & 7), wherein the plastic container and barrier

layer has oxygen scavenging property that is activated after filling the container with an aqueous fluid (7:24-33, 7:59-63, 8:46-51). Collette also teaches forming bottles with catalysts that are activated by heat (7:32) and hot fill applications (7:61), which would therefore activate the catalyst during filling.

Collette does not explicitly teach that the admixture consists essentially of the preblend and virgin bottle grade polyester. However, this aspect of the invention would have been *prima facie* obvious because (a) the admixture of Collette contains virgin PET (See Claim 28), and it would have been obvious to use the same material in other stages of the process, (b) Collette treats the post-consumer material by drying such that it would be substantially the same as virgin PET (5:59-65), (c) it is submitted that it would have been obvious to the ordinary artisan to substitute virgin PET for post-consumer PET in order to reduce contaminants and improve cleanliness, or (d) because PET and PC-PET would be obviously interchangeable or substitutable for each other in the fabrication of bottles.

It would have been *prima facie* obvious to one of ordinary skill in the art at the time of the invention to incorporate the method of Collette into that of Speer because (a) Speer suggests a masterbatch process and diluent polyester (6:8-45), which Collette provides, and (b) the masterbatch process of Collette is a known technique that one that the ordinary artisan would have found applicable to the Speer process since both patents teach substantially the same constituents and end use (packaging), and one would have found it obvious to apply the masterbatch process of Collette to the Speer process in order to provide improved dispersion of the scavenging material in the polyester packaging material.



**As to Claim 28**, Collette et al teach a transition metal oxygen scavenging material present in the preblend in an amount of about 50 to about 1000 parts per million (col. 10, lines 23-37), the polyamide material is present in the preblend in an amount of about 10-50% by weight of the preblend (col 15 line 7-11), and the polyester comprising PET used in a percentage of about 50-90% (col 15, lines 3-4).

**As to Claim 29**, Collette et al teach a transition metal oxygen scavenging material present in the preblend in an amount of about 50 to about 1000 parts per million (col. 10, lines 23-37), the polyamide material is present in the preblend in an amount of about 10-50% by weight of the preblend (col 15 line 7-11), and the polyester comprising PET used in a percentage of about 50-90% (col 15, lines 3-4).

**As to Claim 30**, Collette teaches the base polyester contains virgin polyethylene terephthalate (col 16, lines 12-14).

**As to Claim 31**, Speer teaches a process in which a diluent polyester (6:8-18), a polyamide material (3:53-56), and an oxygen scavenging material (4:64-5:12) are preblended (10:40-65), and the material is subsequently injection molded or blow molded (6:45-50) and suggests that the articles be provided as monolayers (single layers of material, 3:28-30). The plastic container formed by the Speer process would be stable during unfilled storage since and can be activated at any stage, particularly during packaging (9:5-15).

Speer is silent to the mixing the preblend into a molding apparatus with a base polyester, injection molding a preform, and then expanding the preform to provide a plastic container having a barrier layer formed from an admixture.

Collette teach a method comprising the steps of: (a) forming a preblend/masterbatch (col 5 lines 6-7) comprising: a diluent polyester (col 5 line 17), a polyamide material (col 5 line 18), and an oxygen scavenging material (col 5 line 19); providing a base grade polyester (col 15, lines 12-20, col 16, lines 12-14); introducing the preblend and the polyester into a molding apparatus to permit melting and admixing of the preblend and the base polyester (col 5 lines 29-65); injection molding or extruding the admixture in the apparatus to provide a preform (fig 3, 59); and expanding the preform to provide a plastic container having a barrier layer formed from the admixture of the preblend and polyester (fig 6 & 7), wherein the plastic container and barrier layer has oxygen scavenging property that is activated after filling the container with an aqueous fluid (7:24-33, 7:59-63, 8:46-51). Collette also teaches forming bottles with catalysts that are activated by heat (7:32) and hot fill applications (7:61), which would therefore activate the catalyst during filling. Collette acknowledges that fabrication of monolayer articles is generally known in the prior art (col 1, lines 46-60), and it would have been prima facie obvious to provide a monlayer preform.

It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate the method of Collette into that of Speer because (a) Speer suggests a masterbatch process and diluent polyester (6:8-45), which Collette provides, and (b) the masterbatch process of Collette is a known technique that one that the ordinary artisan would have found applicable to the Speer process since both patents teach substantially the same constituents and end use (packaging), and one would have found it obvious to apply the masterbatch process of Collette to the Speer process in order to provide improved dispersion of the scavenging material in the polyester packaging material.

**As to Claim 32**, Collette et al teach a transition metal oxygen scavenging material present in the preblend in an amount of about 50 to about 1000 parts per million (col. 10, lines 23-37), the polyamide material is present in the preblend in an amount of about 10-50% by weight of the preblend (col 15 line 7-11), and the polyester comprising PET used in a percentage of about 50-90% (col 15, lines 3-4).

**As to Claim 33**, Speer teaches that the amount of transition metal catalyst may range from 10 ppm to 10,000 ppm of the scavenging component, which suggests a wide range encompassing the claimed amount.

**Rejections over Collette or Nilsson in view of Collette**

2. **Claims 1-4, 6-15, 17-21, 25-30** are rejected under 35 U.S.C. 103(a) as obvious over Collette (5759653).

**As to Claim 1**, Collette teach a method comprising the steps of: (a) forming a preblend/masterbatch (col 5 lines 6-7) comprising: a diluent polyester (col 5 line 17), a polyamide material (col 5 line 18), and an oxygen scavenging material (col 5 line 19); providing a base/core layer polyester (col 5 line 31); introducing the preblend and the base polyester into a molding apparatus to permit melting and admixing of the preblend and the base polyester (col 5 lines 29-65); injection molding or extruding the admixture in the apparatus to provide a preform (fig 3, 59); and expanding the preform to provide a plastic container having a barrier layer formed from the admixture of the preblend and polyester (fig 6 & 7), wherein the plastic container and barrier layer has oxygen scavenging property that is activated after filling the container with an aqueous fluid (7:24-33, 7:59-63, 8:46-51). Collette also teaches forming

bottles with catalysts that are activated by heat (7:32) and hot fill applications (7:61), which would therefore activate the catalyst during filling. If it is ultimately determined that Collette activates before filling, this limitation is drawn merely to a rearrangement of process steps disclosed by the prior art, and in view of Collette's teaching of methods in which the catalysts are activated, one would have found it obvious to rearrange the order of filling and activation.

Collette do not explicitly teach that the container is "stable during unfilled storage". However, in this regard, Collette suggests that catalysts are activated by oxygen (7:30), heat (7:32), or moisture (7:2-6), and that the stability (shelf life) of the bottles may be improved by refrigeration, desiccation, or storing in a modified atmosphere environment (7:24-28). Thus, although Collette is silent to the stability, Collette teaches storage conditions which would improve the stability of the bottle.

**As to Claim 2**, Collette teach that the plastic container is a multilayer plastic container (fig 7).

**As to Claim 3**, Collette suggest that monolayer plastic containers are known and conventional in the prior art (col 1 lines 47-51).

**As to Claim 5**, Collette teaches the same preblending process, and (see the rejection of Claim 1 above), and thus the preblend would implicitly exhibit the claimed characteristics despite that Collette is silent to comparing the preblend with the claimed hypothetical mixture.

**As to Claim 6**, Collette et al teach that the preblend is in a form of solid particles (col 5 line 26).

**As to Claim 7**, Collette et al teach that the diluent polyester is present in the preblend in an amount of about 25% to about 75%, by weight of the preblend (col 16 line 3-7).

**As to Claim 8**, Collette et al teach that the diluent polyester comprises polyethylene terephthalate and polyethylene naphthalate (col 14 line 22-27).

**As to Claim 9**, Collette teaches that the base polyester contains a substantial portion virgin PET, which would implicitly be bottle grade (16:12-14). It is noted that Claim 19 of Collette is drawn to “on the order of 50% post consumer PET” (15:15-20). However, the Examiner’s position will be that the additional post consumer PET does not materially affect the basic and novel characteristics of the claimed invention because it provides PET material which would have the same or substantially the same structure as the virgin material.

**As to Claim 10**, Collette et al teach that the polyamide material is present in the preblend in an amount of about 25% to about 75%, by weight of the preblend (col 15 line 7-11).

**As to Claim 11**, Collette et al teach that the polyamide material comprises a polymer containing m-xylylenediamine monomer units (col 10 line 51).

**As to Claim 12**, Collette et al teach that the polyamide material comprises a polymerization product of m-xylylenediamine and adipic acid (col 10 lines 51-52).

**As to Claims 13-15**, Collette et al teach an oxygen scavenging material present in the preblend in an amount of about 50 to about 1000 parts per million, by weight and comprises cobalt or a metal complex thereof (col 10 lines 24-37).

**As to Claim 17**, Collette et al teach that the base polyester is in a form of solid particles (col 5 lines 59-67).

**As to Claim 18**, Collette et al teach that the preblend and the base polyester are admixed in an amount of about 0.5% to about 20%, by weight, of the preblend, and about 80% to about 99.5%, by weight, of the base polyester (col 16 lines 8-11).

**As to Claim 19**, Collette et al teach that the base polyester is polyethylene terephthalate (col 5 line 31).

**As to Claim 20**, Collette et al teach that the polyethylene terephthalate comprises a virgin bottle grade polyethylene terephthalate, a post consumer grade polyethylene terephthalate, or a mixture thereof (col 5 lines 11-32).

**As to Claim 21**, Collette et al teach that the preform contains about 10 to about 80 ppm, by weight, of the oxygen scavenging material (col 1 line 53).

**As to Claim 25**, Collette teaches that the containers are maintained in refrigeration or desiccation (7:25-28), and hot filling (7:61) or filling with water (8:46-51), which would inherently activate the oxygen scavenging property for those catalysts which activate at room temperature (7:29-30). Alternatively, this aspect of the invention is drawn to a rearrangement of process steps disclosed in the prior art, which is generally deemed to be prima facie obvious. In view of Collette's teaching that the scavengers are activated by heat and moisture (), it would have been obvious to activate the scavengers with a hot product (7:61) containing moisture ()

**As to Claim 26**, Collette's teaching of the claimed process steps and ingredients, when used to form a package, would implicitly meet the claimed result.

**As to Claim 27**, Collette teach a method comprising the steps of: (a) forming a preblend/masterbatch (col 5 lines 6-7) comprising: a diluent polyester (col 5 line 17), a polyamide material (col 5 line 18), and an oxygen scavenging material (col 5 line 19); providing a virgin grade polyester (col 16, lines 12-14); introducing the preblend and the polyester into a molding apparatus to permit melting and admixing of the preblend and the base polyester (col 5 lines 29-65); injection molding or extruding the admixture in the apparatus to provide a preform

(fig 3, 59); and expanding the preform to provide a plastic container having a barrier layer formed from the admixture of the preblend and polyester (fig 6 & 7), wherein the plastic container and barrier layer has oxygen scavenging property that is activated after filling the container with an aqueous fluid (7:24-33, 7:59-63, 8:46-51). Collette also teaches forming bottles with catalysts that are activated by heat (7:32) and hot fill applications (7:61), which would therefore activate the catalyst during filling.

Collette does not explicitly teach (a) the admixture consists essentially of the preblend and virgin bottle grade polyester, or (b) the permeability change achieved by the filling with water. However, these aspects of the invention would have been prima facie obvious for the following reasons:

(a) The admixture of Collette contains virgin PET (See Claim 28), but also contains post consumer PET. However, because the material is the same or substantially the same as the remainder of the preblend material, it would not materially affect the basic and novel characteristics of the invention, and thus this transitional language would still read on the method of Collette.

(b) The claimed process steps and ingredients of Collette, when used to form a package according to Collette's teachings, would implicitly meet the claimed result.

**As to Claim 28**, Collette et al teach a transition metal oxygen scavenging material present in the preblend in an amount of about 50 to about 1000 parts per million (col. 10, lines 23-37), the polyamide material is present in the preblend in an amount of about 10-50% by weight of the preblend (col 15 line 7-11), and the polyester comprising PET used in a percentage of about 50-90% (col 15, lines 3-4).

**As to Claim 29**, Collette et al teach a transition metal oxygen scavenging material present in the preblend in an amount of about 50 to about 1000 parts per million (col. 10, lines 23-37), the polyamide material is present in the preblend in an amount of about 10-50% by weight of the preblend (col 15 line 7-11), and the polyester comprising PET used in a percentage of about 50-90% (col 15, lines 3-4).

**As to Claim 30**, the base polyester contains virgin polyethylene terephthalate (col 16, lines 12-14).

3. **Claims 31-33** are rejected under 35 U.S.C. 103(a) as obvious over Nilsson (USPN 5034252) in view of Collette (5759653). **As to Claim 31**, Nilsson teaches mixing polyethylene terephthalate, polyamide, and an oxygen scavenging material (col 3, lines 29-50), making a monolayer preform by injection molding and expanding it to provide a plastic container (5:1-41). The article of Nilsson would have stability during storage (an aging process is required to cause activation), and would have an oxygen scavenging property activated when filled with aqueous fluid. Nilsson is silent to the preblend process of step (a) and mixing the preblend with the base polyester.

However, Collette teach a method comprising the steps of: (a) forming a preblend/masterbatch (col 5 lines 6-7) comprising: a diluent polyester (col 5 line 17), a polyamide material (col 5 line 18), and an oxygen scavenging material (col 5 line 19); providing a base grade polyester (col 15, lines 12-20, col 16, lines 12-14); introducing the preblend and the polyester into a molding apparatus to permit melting and admixing of the preblend and the base polyester (col 5 lines 29-65); injection molding or extruding the admixture in the apparatus to



provide a preform (fig 3, 59); and expanding the preform to provide a plastic container having a barrier layer formed from the admixture of the preblend and polyester (fig 6 & 7), wherein the plastic container and barrier layer has oxygen scavenging property that is activated after filling the container with an aqueous fluid (7:24-33, 7:59-63, 8:46-51). Collette also teaches forming bottles with catalysts that are activated by heat (7:32) and hot fill applications (7:61), which would therefore activate the catalyst during filling. It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate the method of Collette into that of Nilsson in order to provide improved mixing of the constituent materials.

**As to Claim 32**, Collette et al teach a transition metal oxygen scavenging material present in the preblend in an amount of about 50 to about 1000 parts per million (col. 10, lines 23-37), the polyamide material is present in the preblend in an amount of about 10-50% by weight of the preblend (col 15 line 7-11), and the polyester comprising PET used in a percentage of about 50-90% (col 15, lines 3-4). **As to Claim 33**, Collette et al teach a transition metal oxygen scavenging material present in the preblend in an amount of about 50 to about 1000 parts per million (col. 10, lines 23-37), which reads on the claimed amount or suggests the result-effective nature of this component.

#### ***Response to Arguments***

4. Applicant's arguments filed 17 November 2008 have been fully considered but they are not persuasive. The arguments appear to be on the following grounds:
- a) Speer provides a container which is exposed to radiation to initiate scavenging prior to, during, or after product packaging. However, neither reference discloses a plastic container

having a barrier layer as recited in claim 1 and the container properties of clause (f). The alleged inherent properties are absent from the relevant containers disclosed in the references. Speer focuses on polybutadiene, and discloses that the only polyamide barrier material is not storage stable. The barrier layer of Collette is activated prior to filling.

b) Claim 27 recites “consists essentially of” a virgin grade polyester and a preblend of a diluent polyester, a polyamide, and an oxygen scavenging material. Speer discloses a barrier layer that is activated before product filling. Neither reference discloses a plastic container having a barrier layer consisting essentially of virgin PET and the instantly claimed preblend. The office action argues that it would have been obvious to substitute virgin PET for PC-PET, but this ignores the specific teaching of Collette. Collette draws a clear distinction between virgin PET and PC-PET, which surprisingly acts to accelerate activation of the scavenger.

c) Neither Speer nor Collette discloses a monolayer article that is stable during unfilled storage. Moreover, Collette teaches against monolayer constructions.

d) The container of Collette and that of Claim 1 are not substantially identical since Collette makes clear that the container is activated before filling, and does not provide the properties in clause (f). The Office Action focuses on the perceived similarities between the individual process steps of the instant claims and those of Collette and implies that Applicants must explain why the two would have different properties. Applicants have no burden to explain why the Collette barrier layer is activated prior to filling.

e) The Office Action ignores the technical considerations associated with activating an oxygen-scavenger of a barrier layer. Applicants do not know precisely what factor(s) are responsible for activation of the Collette barrier layer prior to filling. No explanation has been offered as to how

a skilled artisan would have modified the Collette method to successfully produce a storage stable container having a barrier activated only after filling.

f) It is irrelevant whether Collette teaches an admixture as recited in Claim 27 since Collette teaches activation of the barrier layer before filling, and does not disclose any mechanism for activating after filling. Collette itself states that virgin PET and PC-PET are not substantially the same, and the prosecution history of Collette states that the PC-PET accelerates activation of the oxygen scavenger.

g) Neither Nilsson nor Collette teach a method for making a barrier layer that is activated after filling. Nilsson teaches that the preform or container is allowed to undergo an aging process prior to container filling. Collette teaches to include an amount of PC-PET in the scavenger layer to achieve activation prior to container filling.

5. These arguments are not persuasive for the following reasons:

a) Applicants do not define "stable during unfilled storage," as any particular length of time, and the Examiner submits that 23 days meets the undefined term. Speer discloses an unirradiated sample after 23 days of storage storage which absorbed 0.5% of the oxygen in its enclosure. There is no basis for asserting that this sample is "unstable" during unfilled storage, and in the alternative, there is no evidence showing that samples formed by the method of Claim 1 exceed this unfilled storage stability. The alleged property is present, and the Examiner submits that the masterbatching process is conventional in the art. One would have found it obvious to perform a masterbatching process with the Speer method as set forth in Claim 1.

b) As noted in the table set forth previously, Collette teaches that the preblend contains virgin PET, and Applicants' specification admits the preblending process itself (rather than the use of PC-PET or virgin PET) is what produces the delayed activation. For example: "Importantly, the preparation of the preblend minimizes or eliminates contact between the polyamide material and the oxygen scavenging material prior to incorporation into the base polyester." (Spec. 32, lines 17-20) Furthermore, Applicants appear to be arguing against their specification when they state or suggest that the two materials (PET, PC-PET) are compositionally different. The instant specification discloses a Preblend comprising (i) diluent polyester which may be virgin or post-consumer PET (page 16, lines 10-12), (ii) polyamide (page 17, line 15 to page 18, line 31), and (iii) oxygen scavenging material (pages 19-20), and later combination with base polyester, which may be post-consumer PET (bases may be same as diluents, page 8, lines 22-24, diluents are listed at page 16, lines 10-12). It is respectfully submitted that Applicants cannot now take a position contrary to their specification that the difference between virgin and post-consumer PET is significant in a masterbatching process. It is the preblending which produces the delayed activation. For example: "Importantly, the preparation of the preblend minimizes or eliminates contact between the polyamide material and the oxygen scavenging material prior to incorporation into the base polyester." (Spec. 32, lines 17-20). Additionally, Applicants do not appear to provide evidence that the virgin or post-consumer PET are distinguishable, and it is unclear that a difference by name alone supports patentability. Moreover, such differences are not relevant, it is the preblending that delays the activation behavior.

c) The argument does not appear to address the Speer reference, or its teaching of monolayers at 3:28-30. Applicants argument is factually incorrect in that the Speer reference discloses containers which would be stable during unfilled storage.

d) Applicants assert that the Office Action focuses on the perceived similarities between the individual process steps of the instant claims and those of Collette and implies that Applicants must explain why the two would have different properties. It is respectfully noted that these claims are process claims. The process statutory class would be meaningless if the process steps are not considered, and in this case, the process steps in the reference are the same or substantially the same. The Examiner maintains and reaffirms that it is unclear what process step is different between the claimed process and the prior art, and suggests that the burden is on Applicants to show an unobvious difference. Merely pointing to Collette's use of PC-PET is not enough in this case because Applicants disclose that the instant process may use PC-PET interchangeably with virgin PET in either the preblending or base blending, and because it is the preblending itself which delays activation (Spec. 32). In other words, Applicants' specification asserts that there is no difference in the process when PC-PET is used in place of virgin PET. If there is some process step that distinguishes the claimed invention from the Collette process, then it constitutes critical subject matter which should be claimed.

e) Clearly, Speer teaches that the ordinary artisan has knowledge of how to activate and fill in any order, thus the prior art demonstrates knowledge of how to rearrange the steps of activating and filling. The arguments also suggest that No explanation has been offered as to how a skilled artisan would have modified the Collette method to successfully produce a storage stable container having a barrier activated only after filling. The Examiner asserts that no claim

limitation is offered as to how a skilled artisan would use the claimed method to successfully produce a storage stable container having a barrier activated only after filling, since the claimed process is not distinguishable from that disclosed by the reference.

f) Applicants appear to rely on the arguments of someone unrelated to this case in another prosecution history for distinguishing their process from another process which recites substantially the same steps, but is not persuasive.

g) Applicants' arguments do not appear to note that there is no step of filling the container with aqueous liquid claimed. The claims (for example, Claim 31) recite a step of "expanding" as the last step. The article of Nilsson would appear to meet the claimed limitation before the aging process.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MATTHEW J. DANIELS whose telephone number is (571)272-2450. The examiner can normally be reached on Monday - Friday, 8:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on (571) 272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Matthew J. Daniels/  
Primary Examiner, Art Unit 1791  
3/1/09